FY 1999 Technology Deployment in Environmental Management

Engineering Tomorrow's Solutions Today

Site Technology Coordination Group / Technology Deployment Center
U.S. Department of Energy, Idaho Operations Office

D&D and Remediation Optimal Planning System

Problem: *Typical facility dismantlement is not optimized with regards to waste volumes, disposal costs, and worker radiation exposure.*

Baseline Technology: *On the job worker judgement.*

Innovative Technology: *The simulation-based "Decontamination, Decommissioning and Remediation Optimal Planning System (DDROPS)" was developed to perform advanced planning for D&D of facilities. It incorporates solid geometric modeling (ProEngineer) and INEEL developed optimization routines.*

Comparison: *DDROPS uses optimization techniques to preplan the locations for segmenting and boxing waste material. DDROPS allows the operators to make fewer cuts, use fewer containers, and achieve higher packaging density resulting in lower disposal cost. Potential safety hazards can also be identified. Helps workers visualize tasks before beginning the work.*

Benefits: *The benefits of DDROPS include a detailed inventory of the waste containers' contents, a reduction in cost for project completion due to fewer cuts, and a reduction in workers' exposure to radiation.* TMS#: 2322

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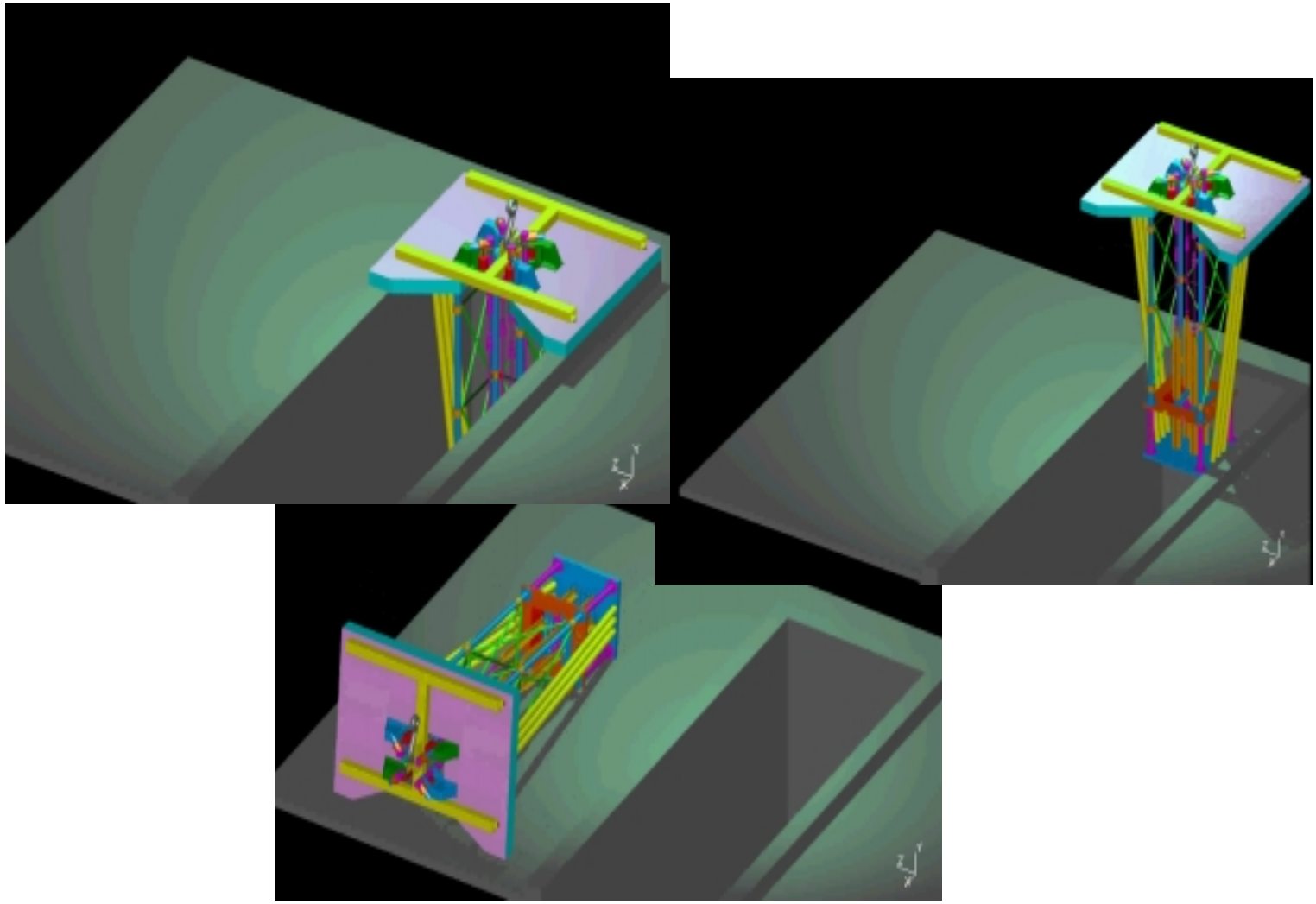

DDROPS Simulation of Reactor Core Removal